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Claim 1 recites an apparatus comprising a shift post processor, a shifter, and a register coupled to the shift post processor and the shifter. The shifter can shift an operand according to an offset parameter, generating a shifted operand. The register is capable of transferring a shift carry operand stored in the register to the shift post processor of storing the shifted operand after any transfer of the shift carry operand. The shift post processor is coupled to the shifter and the register to process the shifted operand to generate an output based on at least a control signal and a mask field. The shift post processor comprises a decoder to decode the offset parameter into the mask field having a plurality of mask bits. Each of the mask bits corresponds to a bit position of the shifted operand.

Groves discloses a method and system of manipulating a contiguous variable length sequence of data. The method can manipulate and shift individual bytes within words. The method uses masks having as many bits are there are bytes in a word. Each bit of a mask indicates how a byte should be processed (col. 4, lines 63-68).

In order to make a *prima facie* case of obviousness, each claim limitation must be taught or suggested in the references (MPEP 2143.03). Among other deficiencies, the reference does not teach or suggest the limitation in claim 1 that each of the mask bits corresponds to a bit position of the shifted operand. This mask allows for shifting by any number of bits, from 1 to the length of the word. Groves is directed to the manipulation of text strings where each character occupies an entire byte. Groves teaches shifting only by entire bytes. There is no teaching or suggestion that shifting be done at the bit level. In fact, Groves teaches against this. If text strings were shifted by numbers of bits other than multiples of 8, then the text would be garbled.

A *prima facie* case of obviousness also requires a suggestion or motivation to modify the reference (MPEP 2143.01). The Examiner stated that a person of ordinary skill would be motivated to use a mask corresponding to bit positions when the shift desired is in units of bits instead of bytes. However, the reference does not show any desire to shift by bits. Groves is directed to "processing character string moves" (title). The proposed modification of shifting by individual bits would render the reference unsatisfactory for its intended purpose.

The Examiner cited portions of Groves (col. 1, line 27, col. 2, line 35) referring to bits as the smallest unit. However, Groves states only that it would be desirable to access nibbles. There is no mention of the desirability of shifting by nibbles as a means to access nibbles. There

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is no mention of the desirability of accessing individual bits or of shifting by bits.

As all of the claim limitations have not been taught or suggested, and there is no motivation to modify the reference shown, a *prima facie* case has not been made.

Claim 2 depends from and contains all the limitations of claim 1 and is asserted to distinguish from the reference at least in the same manner as claim 1. Claims 11 and 12 recite a method employing the mask field are asserted to distinguish from the reference in at least the same manner as claim 1. Claims 21 and 22 recite a processing unit having all the limitations of claim 1, including the mask field, and are asserted to distinguish from the reference at least in the same manner as claim 1.

Claims 3-10, 13-20, 23-30, and 31-33 have been rejected under 35 U.S.C § 103(a) as allegedly unpatentable over Groves in view of Prioste (US 4,149,263).

Prioste discloses a multi-bit shifter for numeric data that can shift by individual bits. There is no motivation to combine the references. Groves is directed to character strings and Prioste is directed to numeric data. If shifting as in Prioste were applied to the character strings of Groves, the text would be garbled.

In view of the foregoing, it is submitted that the application is now in condition for allowance.

In the event that a fee is required, please charge the fee to Deposit Account No. 50-0281, and in the event that there is a credit due, please credit Deposit Account No. 50-0281.

Respectfully submitted,

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